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9.4 Leased Buildings

Although many buildings occupied by the Federal workforce are leased, greening actions can be taken during the development and negotiation of the lease as well as after it is signed. These actions can affect the build-out/fit-out and furnishing of the leased space as well as O&M procedures after occupancy. It is best to introduce green concepts during the earliest stages of building selection and lease negotiation. The range of actions that can be taken by facility managers may be limited by lease agreements; however, even with these constraints, many O&M procedures can be implemented to improve the environmental performance of these buildings. The O&M issues with leased buildings are virtually identical to those of owned buildings.

Opportunities

Many of the opportunities outlined in other sections of this guide should be considered for leased buildings. For example, before leasing a building, an agency can conduct a detailed survey of all energy and environmental issues to select a building that is—or can become—a high-performance building, and to identify strategies for greening the facility. A green team should be formed to participate in the lease negotiations to ensure that appropriate strategies are incorporated. Before occupancy, the team or a commissioning agent should ensure that the systems operate as specified.

Technical Information

Model lease provisions: Executive Order 13123 (June 3, 1999) calls for agencies entering into leases, including the renegotiation or extension of existing leases, to incorporate lease provisions that encourage energy and water efficiency wherever life-cycle cost-effective. Build-to-suit lease solicitations shall contain criteria encouraging sustainable design and development, energy efficiency, and verification of building performance. Agencies shall include a preference for buildings having the ENERGY STAR® building label in their selection criteria for acquiring leased buildings. In addition, all agencies shall encourage lessors to apply for the ENERGY STAR building label and to explore and implement projects that would reduce costs to the Federal Government, including projects carried out through the lessors' Energy Savings Performance Contracts or utility energy-efficiency service contracts.

Financing mechanisms: Executive Order 13123 also charges that agencies shall maximize their use of available alternative financing contracting mechanisms, including Energy Savings Performance Contracts and utility energy-efficiency service contracts, when life-cycle cost-effective, to reduce energy use and cost in their facilities and operations. Energy Savings Performance Contracts, which are authorized under the National Energy Conservation Policy Act, as modified by the Energy Policy Act of 1992, and utility energy-efficiency service contracts provide significant opportunities for making Federal facilities more energy-efficient at no net cost to taxpayers.

Agency managers should work with their procurement officials to identify and eliminate internal regulations, procedures, and other barriers to implementation of this order.

LEASED BUILDING ISSUES

Indoor air quality: One of the greatest contributors to poor indoor environmental quality and poor health is an improperly designed, sized, installed, and maintained HVAC system. Along with addressing equipment selection when that is an option, the facility manager should address HVAC maintenance: filter changing, control system inspection, air/water system balancing, etc. Interior finishes can also cause air quality problems. With leased space, look for low-emission materials, especially paints, wall coverings, carpets and carpet padding, adhesives, sealants, varnishes, particleboard, and furnishings. Require low-VOC materials in the lease terms; most are cost-competitive with traditional materials. Other requirements can include staging the construction so that VOC-emitting materials are applied before materials that act as "sinks" (such as carpet) are installed; flush-out of the space before occupancy; and thorough cleaning of ductwork that might have become contaminated during construction. The facility manager should monitor and verify that the building air quality complies with all regulatory and contractual requirements.

Energy consumption: Depending on the lease provisions, energy consumption of the building can vary greatly. An agency leasing an entire building may be

in a position to require substantial upgrades, including modifications to the HVAC system, addition of an energy management system, installation of improved T-8 fluorescent lighting, and so forth—all of which can dramatically affect operational costs. With energy upgrades, care should be taken to ensure that all the ramifications of system changes are considered and the potential benefits realized. For example, extensive lighting retrofits or glazing replacements can significantly reduce HVAC loads, enabling chillers to be downsized. Even when total energy use is not reduced, changes in electric demand profiles can result in significant dollar savings, depending on utility pricing.

Water use: Older leased buildings probably have old plumbing fixtures that use considerably more water than today's standards. During renovations of restrooms, replace fixtures (or valves) with low-flow products—when upgrading faucets and urinals, products can be installed that significantly exceed water conservation standards (see *Sections 6.2* and *6.3*). Ensuring that malfunctioning and leaking fixtures are quickly repaired can greatly reduce water consumption. A Water Management Plan, as described in *Section 6.1*, can be the basis for such improvements.

Materials: In addition to specifying low-VOC finishes, requirements can include salvage or recycling of materials being removed during renovation; *reuse* of certain existing materials (such as ceiling grid systems, doors, and wood flooring.); installation of materials with high recycled content (such as carpet and insulation); the use of natural and biobased products (such as natural-fiber upholstery and straw particleboard); and the use of only *certified* wood products when wood is specified.

Recycling programs: Reducing the environmental impacts of Federal buildings, whether leased or owned, can be helped greatly by controlling the generation of waste. Paper waste accounts for the greatest quantity of solid waste generated. The implementation of recycling programs is fairly straightforward, though facility managers need to ensure that programs are being successfully carried out and that materials collected for recycling are actually being recycled.

Transportation: Access to public transportation should be considered when selecting a building. Reducing the need for employees to use private automobiles can significantly improve the overall greenness of a facility. In negotiating parking spaces in the lease, preferred parking for carpools can be included as well as secure bicycle storage. Consider offering employee incentives to encourage commuting by other than private automobiles—and reduce the amount of parking required.

BEFORE LEASING A BUILDING . . .

Planet GSA is a site dedicated to greening Federal facilities and operations. Review information provided there and contact the GSA to help specify the full set of energy, water, HVAC, and other requirements for the leased space. In addition, review case studies of other public buildings that have negotiated greener leases, such as the Pennsylvania Department of Environmental Protection and the U.S. Environmental Protection Agency.

It is becoming increasingly feasible to require green elements in leases of public buildings. The U.S. Green Building Council is developing a LEED rating system for Commercial Interiors and Renovations that will be helpful in guiding negotiations and design. A&E firms designing the build-out or fit-out of Federal facilities should have experience and expertise in *integrated design* so that they can bring this capability to bear.

References

Energy Efficient Leased-Space Toolbook, Federal Energy Management Program, U.S. Department of Energy, Washington, DC. Available from the FEMP Help Desk at (800) DOE-EREC.

The Department of Environmental Protection, Commonwealth of Pennsylvania, offers a free video on the design and construction of "Pennsylvania's first green building"; P.O. Box 2063, Harrisburg, PA 17105; (717) 787-4190; www.dep.state.pa.us. Two informative handbooks—*Guidelines for High-Performance Green Buildings* and *Model Green Office Leasing Specifications*—can be downloaded from the Governor's Green Government Council Web site at www.gggc.state.pa.us/publictn/default.htm.

Planet GSA, General Services Administration; hydra.gsa.gov/planetgsa/.